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<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/646,829	OHNUMA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	John m. Cooney	1711	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**  
 All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to papers received by 2-25-05.
2. ☒ The allowed claim(s) is/are 1,4-6 and 9-11.
3. ☒ The drawings filed on 25 August 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |                                                                                                                     |                                                                                        |
|---------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)                                                    | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance              |
|                                                                                                                     | 9. <input type="checkbox"/> Other _____.                                               |

The following is an examiner's statement of reasons for allowance: Applicants' current claim 1 recites a preparation method for forming low density rigid polyurethane foam wherein carbon dioxide in its claim defined state is mixed with water in the relative amounts specified by the claims prior to combination with the polyol component wherein through the process cells having good isotropy, cell diameters of 1.0-1.4, beneficial closed cell contents, 70-85% are formed.

The prior art discussed in applicants' own disclosure, Japanese Patent Application Laid-open No. 2002-020444 differs from the methods of claims 1,4,5 and 11 in that it lacks a teaching of blending the carbon dioxide with water prior to mixing with the polyol. This element alone is not sufficient to distinguish the product claims 6,9, and 10 from the disclosure of Japanese Patent Application Laid-open No. 2002-020444 which recognizes combination water, polyol, and carbon dioxide by time of mixing. However, it is employment of the relative amounts of water and carbon dioxide as claimed through the process operations as claimed which results in products having favorable, claim defined isotropies, densities, and closed cell contents, all defined in the method claims, which distinguish these products from the teachings of Japanese Patent Application Laid-open No. 2002-020444. Applicants' demonstrate unexpected results attributable to the employment of their claim defined relative amounts of water and carbon dioxide in the methods defined by their claims which overcomes any position of obviousness which may be derived from the teachings of Japanese Patent Application Laid-open No. 2002-020444.

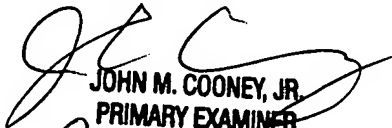
The rejection of Sulzbach ('527) under 35 USC 102 is overcome by applicants' amendments reciting the relative amounts of water and carbon dioxide as is now claimed, and any rejection of the claims under 35 USC 103 over Sulzbach alone or in view of Fishback et al. is overcome by applicants' showing of results. Rejections over Sulzbach alone or in view of Fishback et al. are addressed in further detail in regards to these elements in the reply received 2-25-05.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Cooney whose telephone number is 571-272-1070. The examiner can normally be reached on M-F from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck, can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
JOHN M. COONEY, JR.  
PRIMARY EXAMINER  
Group 1700